New strains of sudden oak death threaten Bay Area trees



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MARIN COUNTY, Calif. - The rainy season brings life-giving water to California but often enacts a penalty in the form of floods, mudslides and falling trees. Now, a new danger has come to light from sudden oak death disease, which has killed tens of millions of trees in its destructive path for decades.

In the 20 years since the detection of the plant pathogen, known as Sudden Oak Death, it has killed upwards of 50 million oaks and tan oaks, infecting more than 150 million oaks. It starves them to death.

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The pathogen is found in 16 coastal and near coastal counties from the Oregon border to the southern border of Monterey County.

"Now, all of a sudden, in the Bay Area, we actually have two different groups of strains," said UC Berkeley Professor Matteo Garbelotto, one of the researchers that found the original pathogen strains.



An oak tree shows signs of the effect of Sudden Oak Death disease at the Los Trancos Open Space Preserve near Palo Alto, Calif. on Wednesday, July 13, 2011. Crews from the California Conservation Corps are cutting down bay laurel trees carrying the Sudden Oak Death disease, which threaten ... More

The professor says the new strains are more harmful than previous.

"The new group of strains, the NA2 lineage is more infectious than the original ones, and it does better in warmer climates which, obviously for California is a problem," said Garbelotto.

NA2 infected trees have already been found in the East Bay and the Peninsula.

"In general, the issue becomes more serious every time we have a rainy year, and that's why we're very worried this year because we've had two rainy years in a row

and we just started the rainy season already," the professor said.



Weather is a key factor in spreading the pathogen.

"It blows around in wind-driven rain and that exactly how it's moving here," said Environmental Horticulturist Steven Swain, who is with the UC Cooperative Extension in Marin

Swain says the new strains look to be more dangerous.

"It's landing on the trunks of oaks and for some reason it seems to have the ability to penetrate the trunks of oaks, which most pathogens can't do. It allows genetic flexibility. It allows them to have kids and some of those kids might be much better at killing oaks," he said.

The new pathogen could pop up anywhere.

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"The numbers are ever-changing because the disease is always on the move," said Garbelotto.

Dead oaks present increased fire danger as well as branch fall or total collapse danger, as well as a loss of food and habitat.

"Acorns have a lot of energy in themand and squirrels and jays and all kinds of animals. Bears, even deer all rely on that for food," said Swain.

Including countless insects, all of those species benefit greatly from the oaks and if the oaks go and some of the species go, the face of California will change forever, for the worst.

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